

WHAT IS CLAIMED IS:

1. A method of purifying water comprising the steps of:
causing contaminated waste water to flow through an inlet into an elongated, closed water channel;
nitrifying, in a treatment zone adjacent to the inlet, the waste water by aerobic bacteria; and
denitrifying, the waste water with anaerobic bacteria in a treatment zone adjacent an outlet of the water channel;
thereby producing purified waste water in which the content of a nitrate has been reduced.

2. A water purifying apparatus comprising:
an elongated, closed water channel having an inlet for contaminated waste water, and an outlet for purified waste water;
the channel comprising an aerobic bacteria treatment zone adjacent the waste water inlet, and an anaerobic bacteria treatment zone adjacent the waste water outlet.

3. A water purifying apparatus according to claim 2, wherein said elongated, closed water channel is formed by connecting a series of tubes into a zigzag-shape.

4. A water purifying apparatus according to claim 2, wherein said elongated, closed water channel includes a plurality of J-shaped cylindrical tubes which are arranged with upper and lower end portions alternately connected to each other so as to form a zigzag shaped water channel.

5. A water purifying apparatus according to claim 2, wherein said elongated, closed water channel includes a plurality of U-shaped cylindrical tubes which are arranged

with upper and lower end portions alternately connected to each other so as to form a zigzag shaped water channel.